

C L A I M S

1. Process for the production of pieces of synthetic material of hollow annular cross-section, made by preliminary injection of melted synthetic material into a mold, followed by the injection of a fluid under pressure adapted to press the molten material against the walls of the mold, whilst terminating the filling of the imprint, characterized in that it consists essentially in carrying out the injection of melted synthetic material at the shank or hub (3), by means of an opening provided for this purpose in the mold and in that the injection of a fluid is carried out, adjacent the shank or hub (3), through at least one opening provided in the hub permitting the production of a zone of guidance (10) for the axle of rotation.

2. Process according to claim 1, characterized in that the injection of fluid is carried out through the hub permitting the production of the zone of guidance (10) for the rotation axle.

3. Process according to claim 1, characterized in that after solidification of the synthetic material constituting the piece (1), the pressure of the fluid is stopped and the conduit connected to the injection hub is emptied, such that said fluid is evacuated from the piece (1) leaving in this latter only veins formed in the material constituting it.

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4. Process according to claim 1, characterized in that the bubbles formed by injection of fluid through the hub

carry out an intimate application of the synthetic material against the corresponding walls of the mold, namely those delimiting the ribs or radii (4) and/or a sheet (5) and a hollow cross-section (2), these bubbles expanding in a
5 perfectly balanced manner in the portion of the mold corresponding to the hollow annular cross-section (2) and being adapted to form, between two bubbles emanating from two different ribs or radii (4), a separation wall (7).

10 5. Process according to claim 1, characterized in that in the case of producing pieces (1), comprising a sheet (5), it consists in delimiting in this sheet (5), at regular intervals, a certain number of pockets of fluid by means of the injection hub forming a guidance zone (10) for
15 the rotation axle.

6. Piece of hollow synthetic material, obtained by the practice of the process according to ~~any one of claims 1 to 5~~
claim 1
20 characterized in that it is of one piece construction and has a wall thickness of the hollow annular cross-section (2) that is constant and small.

7. Piece according to claim 6, characterized in that it has a hollow annular cross-section (2) provided with
25 hollow sections delimited by transverse walls (7), these hollow sections being each connected to a corresponding hollow section delimited in a rib or radius (4) and/or in the sheet (5).

30 8. Piece according to claim 7, characterized in that it comprises a hollow annular cross-section (2) connected to its hub or shank (3) by one or several radii or ribs (4)

disposed at regular intervals and integrated or not into a sheet (5).

9. Piece according to claim 7, characterized in that
5 it is provided, in the sheet (5), at regular intervals, with a certain number of pockets connected to the guidance region (10) for the rotation axle.

10. Piece according to claim 8, characterized in that
10 the radii or ribs (4) have a circular cross-section.

11. Piece according to claim 6, characterized in that
it is provided, by over-molding, with a covering strip (8) of a soft synthetic material, such as synthetic rubber or
15 any other material that can perform the same function.

12. Piece according to claim 8, characterized in that
it is provided, on at least one side of its hub or shank (3) with means (9) for guidance and snapping into a
20 support.

13. Piece according to claim 12, characterized in that
the means (9) is in the form of a lug that snaps into an opening (11) provided for this purpose in the hub or shank
25 (3).